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EXAMINER	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/733,813
Filing Date: December 08, 2000
Appellant(s): AVETISIAN ET AL.

Thomas J. Brindisi
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 5/19/2005.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying that there are no known related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

This appeal involves claims 1-5, 7-13, 15, 16, 19, 20 and 26-29. Claims 6, 14, 17, 18 and 21-25 have been previously canceled.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of rejection to be reviewed on Appeal

The appellant's statement of the grounds of rejection in the brief is correct.

Appellant's brief presents arguments relating to the correctness or otherwise of the examiner making the last office action final (action mailed 12/14/2004) in view of the Declaration of Vahan Avetisian (one of the named inventors) filed 4/9/2004. This issue relates to petitionable subject matter under 37 CFR 1.181 and not to appealable subject matter. See MPEP § 1002 and § 1201.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

The following is a listing of the evidence (e.g., patents, publications, Official Notice, and admitted prior art) relied upon in the rejection of claims under appeal.

5,576,509	Refouvelet et al.	11-1996
2,741,179	Taylor et al.	4-1956
3,906,858	Craig et al.	9-1975
5,932,832	Hansen et al.	8-1999
6,295,935	Swann et al.	10-2001
2,968,985	Seavey	1-1961

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-5, 8-11,26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Taylor et al. (US 2,741,179 A).

Refouvelet et al. disclose the initiator 1 (col. 2, lines 25-67; the embodiment of fig. 1) and the method of making the initiator substantially as claimed. Refouvelet et al.'s pre-existing integral and unitary molded plastic body 10 (fig. 1) surrounding the initiator subassembly inherently provides structural support and installation

orientation features. Furthermore, Refouvelet et al.'s initiator subassembly comprises a glass-to-metal sealed header assembly (fig. 1; see also col. 2, lines 25 – 67).

However, Refouvelet et al. do not disclose, in Fig. 1, the electrically-nonconductive molded body surrounding substantially all of the initiator subassembly. Lines 4-6 of the abstract state that the casing includes a molded plastics material surrounding **at least** the end plate and a portion of the electrodes. This statement can be reasonably interpreted to mean that the molded plastics material can surround somewhat more than just the endplate and a portion of the electrodes and does not preclude the molded plastic potentially surrounding the upper portion of the initiator.

Taylor et al. teach that it is old and well known in the art to substantially surround all of an initiator/detonator subassembly except for an exposed portion of a connector end with a protective body to form an electrically-non-conductive protective casing therefor (casing labeled part 13 in the figure; see also col. 2, lines 52-58). Note that the examiner is not suggesting that the actual rubber-like coating 13 of Taylor et al. be physically used to surround the Refouvelet et al. initiator subassembly of Fig 1. Rather, only Taylor et al.'s teaching as underlined above is applied to modify Refouvelet et al.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to extend the pre-existing integral and unitary molded plastic body 10 of Refouvelet et al. embodiment in figure 1 such that it surrounded

substantially all of the initiator subassembly of the Refouvelet et al. initiator to form an electrically-non-conductive protective casing therefor, in view of the teachings of Taylor et al. as noted above.

Claims 1-5, 8-11,26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Craig et al. (US 3,906,858 A).

Refouvelet et al. disclose the initiator 1 (col. 2, lines 25-67; the embodiment of fig. 1) and the method of making the initiator substantially as claimed. Refouvelet et al.'s pre-existing integral and unitary molded plastic body 10 (fig. 1) surrounding the initiator subassembly inherently provides structural support and installation orientation features. Furthermore, Refouvelet et al.'s initiator subassembly comprises a glass-to-metal sealed header assembly (fig. 1; see also col. 2, lines 25 – 67).

However, Refouvelet et al. do not disclose, in Fig. 1, the electrically-nonconductive molded body surrounding substantially all of the initiator subassembly. Lines 4-6 of the abstract state that the casing includes a molded plastics material surrounding **at least** the end plate and a portion of the electrodes. This statement can be reasonably interpreted to mean that the molded plastics material can surround somewhat more than just the endplate and a portion of the electrodes and does not preclude the molded plastic potentially surrounding the upper portion of the initiator.

Craig et al. teach that it is old and well known in the art to substantially surround all of an initiator subassembly except for an exposed portion of a connector end with an electrically-nonconductive protective body) to form a electrically-non-conductive protective casing that provides electrical insulation, corrosion protection and moisture proofing for the enclosed initiator (casing parts labeled parts 46 and 65 in figure 1; see also col. 4, lines 37-53 and col. 5, lines 1-11).

Note that the examiner is not suggesting that the protective body formed by parts 65 and 46 of Craig et al. is an integral structure. Nor is the examiner suggesting that the actual non-integral protective body of Craig et al. be physically used to surround the Refouvelet et al. initiator subassembly of Fig 1. Rather, only Craig et al.'s teaching as underlined above is applied to modify Refouvelet et al.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to extend the pre-existing integral and unitary molded plastic body 10 of the Refouvelet et al. embodiment in figure 1, such that it surrounded substantially all of the initiator subassembly of the Refouvelet et al. initiator to form an electrically-non-conductive protective casing therefor, in view of the teachings of Craig et al. as noted above.

Claims 7 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Hansen et al. (US 5,932,832 A) and either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A).

Refouvelet et al., Taylor et al. and Craig et al. are applied as above. However, the combination of these references does not disclose that the surrounding molded

protective casing is a nylon molded body. Refouvelet et al. disclose that the molding 10 can be formed of a polyamide.

Hansen et al teach, in Fig. 2, that it is old and well known in the art to form a protective molded body of an initiator of nylon. Nylon is a well known polyamide.

To form the molded body of the initiator formed by the combination of Refouvelet et al. and either Taylor et al. or Craig et al. of nylon, as taught by Hansen et al., would have been obvious to one having ordinary skill in the art at the time the invention was made.

Claims 12, 13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Swann et al. (US 6,295,935 B1) and either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A).

Refouvelet et al, Taylor et al. and Craig et al. are applied as above. However, Refouvelet et al, Taylor et al and Craig et al. do not specifically state that the protective molded body is formed by injection molding. Swann et al. teach injection molding to be an old and well known method of molding a body around an initiator subassembly. To injection mold the molded body around the subassembly initiator formed by the combination of Refouvelet et al. and either Taylor et al. or Craig et al. as taught by Swann et al., would have been obvious to one having ordinary skill in the art at the time the invention was made.

Regarding claim 20, Refouvelet et al. disclose that the pyrotechnic substance 2 is provided such that it *"completely fill the casing 3 and to be in intimate contact with the filament 9"* (col. 4, lines 1-6 and fig. 1).

Claims 15, 16 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Swann et al. (US 6,295,935 B1) and Seavey (US 2,968,985 A) and either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A).

Refouvelet et al., Swann et al., Taylor et al. and Craig et al. are applied as above. However the combination of these references does not disclose injecting the molten material at the upper region of the initiator subassembly.

Seavey teaches that it is old and well known in the art to vary the position of the injection points in a mold to achieve a desired result, note lines 30-35 of col. 3.

It would have been obvious to one having ordinary skill in the art at the time that the invention was made to inject the molten material at the upper region of the initiator subassembly in the method formed by the combination of Refouvelet et al., Swann et al., and either Taylor et al., or Craig et al. in view of the teachings of Seavey.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Swann et al. (US 6,295,935 B1) and Hansen et al. (US 5,932,832 A) and either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A). References are applied as above. To injection mold a nylon overmolded body around the subassembly of the initiator formed by the combination

of Refouvelet et al. and either Taylor et al. or Craig et al, as taught by Swann et al. and Hansen et al, would have been obvious to one having ordinary skill in the art at the time the invention was made.

(10) Response to Argument

Applicant's arguments filed in the appeal brief filed 5/19/2005 have been fully considered but they are not persuasive.

The following is in response to the arguments regarding the rejections involving Refouvelet et al. (US 5,576,509) in view of either Taylor et al. (US 2,741,179) or Craig et al. (US 3,906,858).

The unmodified embodiment of fig. 1 in Refouvelet et al. comprises an integral and unitary molded plastic body 10 (fig. 1) surrounding the initiator subassembly that inherently provides structural support and installation orientation features. Note that on page 2, section b) of the appeal brief, the applicants point to reference numbers 57 and 58 of the applicants' invention as the "*installation orientation features*". The shape of the molded plastic body 10 of the Refouvelet et al.'s fig. 1 embodiment clearly comprises equivalent installation and orientation features.

The examiner believes that to extend the pre-existing, integral and unitary molded plastic body 10 of Refouvelet et al.'s figure 1 embodiment, in view of the teachings of either Taylor et al. or Craig et al., such that it surrounded substantially all of the initiator subassembly, does not teach away from the disclosure of Refouvelet et al. The examiner is fully aware that Refouvelet et al. discloses a second embodiment in figure 2 that comprises a two part cover for the initiator. This

figure 2 embodiment of Refouvelet et al. does not preclude one of ordinary skill in the art from modifying Refouvelet et al.'s figure 1 embodiment in view of the teachings of either Taylor et al. or Craig et al.

The language of the Refouvelet et al. abstract, "*The casing includes a molded plastics material surrounding at least the endplate and a portion of the electrodes*, can be reasonably interpreted to mean that the molded plastics material can surround somewhat more than just the endplate and a portion of the electrodes, and does not preclude the molded plastic potentially surrounding the upper portion of the initiator.

The examiner is not suggesting that the actual coating 65 and disk 46 of Craig et al. comprise an integral and unitary protective casing nor that Craig et al.'s coating 65 and the disk 46 be physically used to modify Refouvelet et al. The examiner has properly applied the teachings of Craig et al. to modify Refouvelet et al. as discussed above and has supplied sufficient motivation for making such a modification to Refouvelet et al.'s pre-existing integral and unitary molded plastic body 10 of the Fig. 1 embodiment.

Similarly, the examiner is not suggesting that the actual physical rubberlike coating 13 of Taylor et al. be used to modify Refouvelet et al. The examiner has properly applied the teachings of Taylor et al. to modify Refouvelet et al. as discussed above and has supplied sufficient motivation for making such as modification to Refouvelet et al.'s pre-existing integral and unitary molded plastic body 10 of the Fig. 1 embodiment.

Even though Taylor et al. does not disclose an automotive initiator, the examiner believes that Taylor et al. is analogous art to Refouvelet et al. because both Taylor et al. and Refouvelet et al. are both concerned with solving a similar problem, namely, providing a detonator/igniter/initiator with an electrically non-conductive casing.

Craig et al. is analogous art because it belongs to the same field of endeavor as Refouvelet et al., namely, the small pyrotechnic initiator art suitable for use in gas generators.

Regarding the above rejection of claims 7 and 28 as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Hansen et al. (US 5,932,832 A) and either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A), Hansen et al teach, in Fig. 2, that it is old and well known in the art to form a protective molded body of an initiator of nylon. Although not specifically argued in the appeal brief, the examiner believes that Hansen et al. has been properly applied in this combination rejection.

Regarding the above rejections of claims 12, 13 and 20 as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Swann et al. (US 6,295,935 B1) and either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A), Swann et al. teach injection molding to be an old and well known method of molding a molded body around an initiator subassembly. Regarding claim 20, Refouvelet et al. disclose that the pyrotechnic substance 2 is provided such that it *"completely fill the casing 3 and to be in intimate contact with the filament 9"* (col. 4, lines 1-6 and fig. 1). Although not

specifically argued in the appeal brief, the examiner believes that Swann et al. has been properly applied in this combination rejection.

Regarding the rejections of claims 15, 16 and 29 as being unpatentable over Refouvelet et al. (US 5,576,509 A) in view of Swann et al. (US 6,295,935 B1), Seavey (US 2,968,985 A) and either Taylor et al. (US 2,741,179 A) or Craig et al. (US 3,906,858 A), Seavey teaches that it is old and well known in the art to vary the position of the injection points in a mold to achieve a desired result, note lines 30-35, col. 3. Although not specifically argued in the appeal brief, the examiner believes that Seavey has been properly applied in this combination rejection.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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July 29, 2005

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